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W LAW OF JOINT-STOCK COMPANIES—EXTENSION OF COMMERCE, WITH LIMITED LIABILITY.

INT-STOCK COMPANIES ACT, 1856, as amended in committee, on ment, and on second re-commitment, has passed the third read-House of Commons, the principal features of the bill remaining * The Act does not apply to persons associated together for r insurance purposes. It provides that seven or more persons, for any lawful purposes, may, by subscribing their names to a lum of association, and complying with other requisitions of form themselves into an incorporated company, either with or mited liability. After Nov. 3, 1856, registration under this Act apulsory when there are more than 20 partners, except for such s are governed by some private Act of Parliament, by Royal

impulsory when there are more than 20 partners, except for such as are governed by some private Act of Parliament, by Royal by Letters Patent, or are engaged in working mines within, and the jurisdiction of the Stannaries.

Morandum of association must state the name of the proposed the part of the United Kingdom in which the registered office apany is to be established, the objects of the company, whether ity of the shareholders is to be limited or unlimited, the amount of all capital, the number of shares into which such capital is to a company formed with limited liability, the word "limited" he last word in the name of the company. No company will be under a name identical with that by which an existing company registered, or so nearly resembling it, as to be calculated to dehe form for the memorandum of association is annexed to the numt be adhered to as nearly as practicable. This will, when hind the company and shareholders to the same extent as if subscribed his name, or otherwise duly executed the same, scriber to the memorandum of association shall take one share the company—the number taken by him to be set opposite his, upon the incorporation of the company, entered in the register diders as a shareholder to the extent of the shares he has taken, or and unof association may have annexed thereto the articles ion, signed by the subscribers to the memorandum of association and of association and active and the regularies of the company; and will bind the company and shareerin to the same extent as if they had been inserted in articles ion, and such articles had been registered. Any regulation inwith the provisions of the Act will be void.

istration of the articles of association will be binding on both and shareholders. The memorandum and the articles of association to be one witness, at least; and one witness to be sufficient attestabilation. The memorandum of association and articles of association. The memorandum of association and articles of association of the articles of association and articles

1000L, or part of 1000L, up to 100,000L in the whole, 5s.; for L, or part of 1000L, beyond the first 100,000L, 1s. For re-reny company, except such as are by the Act exempted from pay-registration fees, the same fees are charged as for registering pany. For registering any documents required to be registered, the memorandum of association, a fee of 5s. is charged; and a record of any fact required to be recorded by the Registrar ies, a fee of 5s. is also charged. These fees, or such smaller of Her Mayerr's Exchequer, and carried to the account of idated Fund.

idated Fund.

o registration of any such memorandum of association, with or ce articles of association, the Registrar will certify under his the company is incorporated, and, in the case of a limited comit is limited. The subscribers of the memorandum of associate persons as may from time to time become shareholders, will be a body corporate, by the name prescribed in the memoranciation, having a perpetual succession and a common seal, with old lands, with such pecuniary liability, on the part of the

d printing verbatim the new Acts of Parliament affecting commerce, at length (51 pages) of the only one that may be said to have passed—int length (52 pages) of the only one that may be said to have passed—who companies Act—sufficient to deter us from that course. We shall, a thorough digest of the whole, carefully setting out every particular, a may be in possession of all the facts; while those who may require erence can have them supplied on application at our office—the Jointes Act, 1s.

shareholders as the Act provides. The certificate of incorporation will be conclusive evidence that all the requirements of the Act, in respect of registration, have been complied with; and the date of such certificate will be deemed the date of the incorporation of the company, which may then issue certificates of shares to the subscribers to the memorandum of association, and to all others to whom shares may be allotted, these shares being "personal estate," and must each bear a distinguishing number.

Every company must cause one or more books to be kept, containing a register of shareholders, in which must be entered the names, addresses, and occupations, of the shareholder, the shares held by each: distinguishing each share by its number, the amount paid on the shares by each shareholder, the date at which the name of any person was entered in the register as a shareholder, and the date at which any person ceased to be a shareholder in respect of any share. Once, at least, in every year a list is to be made of all persons who, on the fourteenth day succeeding (query, preceding) the day on which the ordinary general meeting of the company, or, if there be more than one ordinary meeting in each year, the first of such meetings, is held, are holders of shares in the company. This list must show the amount of the nominal capital of the company, the number of shares into which it is divided, the number of shares taken from the commencement of the company up to the date of the summary, the amount of calls made on each share, the amount of calls that has been received and remaining unpaid, and the total amount of the register, and be in the following form, or as near thereto as circumstances admit:—

Shares held by persons no longer Shareholders. Date of Transfer Additional shares held by existing shareholders during Company on the preceding the said There has been called up on each share £ Total amount of calls received, £ Total amount of calls unpaid, £ shares in the iy time during the year immediately to shares so held. Occupation Address. at any of the st of Persons shares there

Non-compliance with these rules renders the company liable to a penalty not exceeding 5l. for every day during which such default continues. No notice of any trust, express, implied, or constructive, to be entered in the register, and no person whose name is not in the register, or subscribed to the memorandum of association, and in respect of the shares so subscribed for, will, for the purposes of this Act, be deemed a shareholder. The transfer must be executed by both transferror and transferree, the transferror being deemed a holder until the name of the transferree is entered in the register-book in respect thereof. A certificate under the common seal of the company will be prima facie evidence of the title of the shareholder to the share or shares therein specified. Calls unpaid on any share will be deemed a debt due from the holder of such share to the company. The register of shareholders must be kept at the registered office pany. The register of shareholders must be kept at the registered office of the company, and, except when closed, as authorised by the Act, must, during business hours, but subject to such reasonable restrictions as the company in general meeting may impose, so that at least two hours a day be appointed for inspection, be open to the inspection of any shareholder gratis, and to any other person, on payment of 1s. Each refusal to allow inspection renders the company liable to a penalty of 2l., with a further penalty of 2l. for every day during which such refusal continues. The company may, upon giving notice by advertisement in some newspaper circulating in the district in which the registered office of the company is situate, close the register for ever times not exceeding on the

circulating in the district in which the registered office of the company is situate, close the register for any time or times not exceeding, on the whole, 21 days in each year. This period will not be reckoned as part of the time within which a transfer is to be registered.

The entry of any person without sufficient cause, or the omission to enter any person in the register, gives him the power to apply, by motion, in any of Her Maistr's superior courts of law or equity as respects companies registered in England or Ireland, or by summary petition to the Court of Session in Scotland, for an order that the register may be rectified. The court may refuse such order with or without costs, or make an order for the rectification of the register, directing the company to pay

all costs of such motion or petition, and any damages the party aggrieved may have sustained. The register of shareholders will be evidence of any matter directed or authorised by the Act to be inserted therein. Copies of the memorandum and articles of association shall be forwarded

Copies of the memorandum and articles of association shall be forwarded by every shareholder at his request, on payment of 1s., or such less sum as may be prescribed by the company. This clause concludes that part of the bill relating to the constitution of the company; and it will be seen that there is no restriction to the value of each share, so that it would appear that the majority of mining undertakings could be brought under its influence with advantage, to out-adventurers at least, and without the material difficulties, as regards alteration in the number and value of the shares, which were presented by the Limited Liability Act of 1855.

The second part of the bill provides for the management and administration of the company, which must have a registered office, to which all communications and notices may be addressed—neglecting to have such office renders the company liable to a penalty of 5t. for every day during which business is so carried on. Notice of the situation of such registered office, or change therein, must be given to the Registrar of Joint-Stock Companies, and recorded by him, and, until such notice is given, the provisions of the Act are not deemed to have been complied with. Every limited company registered under this Act must paint or affix, and keep painted or affixed, its name on the outside of every office or place in which the business of the company is carried on, in a conspicuous position, and in letters easily leville and mostered in leville adventers on its ceits leville and mostered in leville adventers on its ceits.

limited company registered under this Act must paint or affix, and keep painted or affixed, its name on the outside of every office or place in which the business of the company is carried on, in a conspicuous position, and in letters easily legible, and mentioned in legible characters on its scal, on all notices, advertisements, and other official publications of the company, and on all bills of exchange, promissory notes, endorsements by the said company, cheques, and orders for money or goods, bills of parcels, invoices, purporting to be signed by or on behalf of such company, and in all receipts and letters of credit of such company; the penaltics for non-observance of these rules are 5l. for every day during which such name is not kept painted or affixed, payable by the company; and any officer signing or scaling any document, or giving authority for so doing, renders himself liable to a penalty of 50l., and for the payment of the amount of the instrument, when one of a financial idescription to the holder, unless the same be duly paid by the company.

A general meeting must be held once, at least, in each year, and by special resolution at such meeting repeal, alter, or make new provisions in lieu of any regulations of the company. A resolution will be considered "special" whenever it has been passed by three-fourths of the share-holders present in person, or by proxy (when, by the regulations of the company, proxies are allowed), at any meeting of which notice specifying the intention to propose such resolution has been duly given, and such resolution has been confirmed at a subsequent meeting, of which notice shareholders, the chairman's declaration that such special resolution has been carried will be deemed conclusive evidence of the fact. Notice of meeting will be deemed duly given, when in accordance with the regulations of the company. A copy of every special resolution must be registered by the Registrar of Joint-Stock Companies, within fifteen days: non-registration of such special resolution ine

such special resolution on payment of 1s., or any less sum which the company may direct.

Notice of any increase in the nominal capital of the company shall be given to the Registrar of Joint-Stock Companies within fifteen days of the passing of the resolution authorising such increase—penalty, 5l. per day for neglect. The number of shareholders carrying on business must not be less than seven, and when business is carried on by a smaller number for more than six months, each shareholder will be severally liable for the payment of the whole debts of the company contracted during that time, and may be sued for the same, without joining in the action or suit any other shareholder.

for more than six months, each shareholder will be severally habe to the payment of the whole debts of the company contracted during that time, and may be sued for the same, without joining in the action or suit any other shareholder.

The company must cause minutes of all resolutions and proceedings at general meetings to be entered in books from time to time provided for that purpose; such minutes, when signed by the person purporting to be the chairman of such meeting, will be receivable in evidence in all legal proceedings, and, until the contrary is proved, every general meeting in respect of the proceedings of which minutes have been so made will be deemed to have been duly held and convened.

With regard to the legal instruments of the company, any contract, which if made between private persons would be by law required to be in writing, and if made according to English law to be under seal, may be made on behalf of the company in writing, under the common seal of the company; and such contract may in the same manner be varied or discharged. Where the contract would be required to be in writing, it may be made on behalf of the company in writing, signed by any person acting under the express or implied authority of the company, and such contract if between private persons would be valid, although made by parole only, it may be made by parole on behalf of the company by any person acting under the express or implied authority of the company, and may be varied or discharged in the same manner.

By instrument under their common seal, the company may empower any person out of the United Kingdom as their attorney to execute deeds on their behalf, and every deed signed by such attorney to execute deeds on their behalf, and every deed signed by such attorney to execute deeds on their behalf, and every deed signed by such attorney to execute deeds on their behalf, and every deed signed by such attorney to execute deeds on their behalf, and every deed signed by such attorney to execute deeds on their deed to the

number and value of the shareholders, one or more competent inspectors to examine into the affairs of the company, and to report thereon in such manner as the Board of Trade directs. It will be the duty of all officers manner as the Board of Trade directs. It will be the duty of all officers and agents of the company to produce, for the examination of such inspectors, all books and documents in their custody or power—penalty for refusal 51. for each offence; and any inspector may examine upon oath the officers or agents of the company in respect to its affairs. Upon the conclusion of the examination, the inspectors must report their opinion to the Board of Trade, who may direct it to be either written or printed; a copy to be forwarded as the board directs to the registered office of the company, and a further copy will, at the request of the shareholders upon whose application the inspection was made, be delivered to them. All expenses of such examination must be defrayed by the chareholders upon whose application the inspectors were appointed. The company may in general meeting appoint inspectors, who will have the same powers, and perform the same duties, as those appointed by the Board of Trade, with the exception that their report is to be made in such manner, and to such persons, as the company in general meeting directs; but the officers incur the exception that their report is to be made in such manner, and to such persons, as the company in general meeting directs; but the officers incur the same penalties as if the inspectors had been appointed by the Board of Trade. A copy of the report of any inspectors appointed under this Act, authenticated by the seal of the company into whose affairs they have made inspection, will be admissible as evidence in any legal proceedings. All summonses or notices may be served by leaving the same, or sending it through the post, addressed to the registered office of the company, or writing the same of the company, or the same of the company, or the same of the company, or the same of the company.

by giving it to any director, secretary, or other principal officer of the company. Notices by letter must be posted, so as to admit of the letter being delivered in due course of delivery, within the period (if any) prescribed for the giving of such notice; and in proving such service, it will be sufficient to prove that the notice was properly directed and posted. Any summons, notice, writ, or proceeding, requiring authentication by the company, may be signed by any director, secretary, or other authorised officer of the company, and need not be under the common seal of the company; and the same may be in writing, or in print, or partly in writing and nartly in print. by giving it to any director, secretary, or other principal officer of

writing and partly in print.

All offences under this Act, made punishable by any penalty, may be summarily prosecuted before two or more justices; as to England, under 11 and 12 Vic. cap. 43; as to Scotland, under 17 and 18 Vic., cap. 104; and as to Ireland, under 14 and 15 Vic., cap. 93. The justices or sheriff imposing any penalty under the not 15 vic., cap. 95. The justices or anerin imposing any penalty under this Act may direct the whole, or any part thereof, to be applied in or towards payment of the costs, or in or towards rewarding the informant, at whose suite such penalty has been recovered; and subject to such direction, all penalties will be paid into the receipt of Her Majestry's Exchequer, as the Treasury may direct, and carried to the Consolidated Fund.

The Board of Trade may from time to time make such alterations in the forms and tables contained in the schedule approach to the bill as they

forms and tables contained in the schedule annexed to the bill as they deem requisite, and must publish such alterations in the London Gazette; and upon such publication being made, it will have the same force as if it were included in the schedule to the Act.

t were included in the schedule to the Act.

Our readers have now before them what we trust will be all they rejuire to know, as it only now remains to us to refer to that portion of the
bill relating to winding-up. We must, however, congratulate those who
may be interested in unprofitable concerns (for all come within the probill relating to winding-up. We must, however, congratulate those who may be interested in unprofitable concerns (for all come within the provisions of this Act after Nov. 3, 1856), that they will be enabled, under this Act, to wind-up their affairs with much less time and expense than under the old law, in which the Court of Chancery has to to be petitioned instead of the Court of Bankruptcy; for whatever may be said by that great champion of the former court (Mr. Malins) in the House of Commons, we cannot but think that any court is better than the Court of Chancery, except for barristers and solicitors.

The provisions of the Act relating to the winding and will could be sufficient to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the Act relating to the winding and the second of the secon

Chancery, except for barristers and solicitors.

The provisions of the Act relating to the winding-up will apply to all companies registered under the Act, and to all companies registered the Act & Vic. cap 110, "An Act for the Registration, Incorporation, and Regulation of Joint-Stock Companies," from and after the date at which they have obtained re-registration under this Act. A company engaged in working any mine within, and subject to, the jurisdiction of the Stannaries Court will be wound-up in the Court of the Vice-Warden of the Stannaries; a limited company registered in England not engaged in naries Court will be wound-up in the Court of the Vice-Warden of the Stannaries; a limited company registered in England, not engaged in working any mine, in the Court of Bankruptcy, leaving jurisdiction in the place in which the registered office of the company is situate; a limited company registered in Ireland, and whose nominal capital does not exceed 5000L, in the Court of the Commissioners of Bankrupts in Ireland; and, in all cases not hereinbefore provided for, in the High Court of Chancery of England, in the Court of Session in Scotland, and in the Court of Chancery in Ireland, according as the companion as registered in Fe-Chancery in Ireland, according as the companies are registered in England, Scotland, or Ireland, respectively. Any court to which jurisdiction is given with regard to the winding-up of companies under the Act, not being the Court of Chancery or the Court of Session, will, in addition to its ordinary powers, have the same power of enforcing any orders made by it in pursuance of this Act; if in England as the Court of Chancery has if in Scotland as the Court of the court

has, if in Scotland as the Court of Session for either division has, and if in Ireland as the Court of Chancery in Ireland has, in relation to matters within the jurisdiction of such courts respectively.

On the winding-up of any company, whether by the court or voluntarily, the existing shareholders will be liable to contribute to the assets of the company to an amount sufficient to pay the debts of the company; but if the company he limited, he courtifution will be required exceedings. of the company to an amount sufficient to pay the debts of the company; but if the company be limited, no contribution will be required exceeding the amount, if any, unpaid on the shares held by him. With regard to other companies, any person who has ceased to be a shareholder within the period of three years prior to the commencement of the winding-up will be deemed, for the purposes of contribution towards payment of the debts of the company, to be an existing shareholder, having the same right, and subject to the same liabilities to creditors, as if he had not ceased to have a shareholder account that he will not be liable for any debt contracted. be a shareholder, except that he will not be liable for any debt contracted after he ceased to be a shareholder. When he has ceased to be a shareholder within the period of one year prior to the commencement of winding-up, he will in every respect be liable, as if he were still a shareholder. The date of the commencement of the winding-up is deemed to be on The date of the commencement of the winding-up is deemed to be on the passing of the resolution authorising such winding-up. Any share-holder upon whom calls are authorised to be made, and the representatives of any deceased contributory, will be liable for such calls, as if they were a debt due to the company. In order to ascertain the liability of existing and former shareholders as between themselves, it is provided that in the case of a company not limited, every transferree must in a degree, proportioned to the shares transferred, indemnify the transferror against existing and future debts of the company; and in a limited company every transferree must indemnify the transferror against calls due subsequently to

When a company in general meeting has passed a resolution requiring whole year, the shareholders reduced below seven, is unable to pay its debts, or has lost or allowed to become unavailable three-fourths of its debts, or has lost or allowed to become unavailable three-rourths of the capital, it may be wound-up by the court. The company being deemed unable to pay its debts when a creditor to whom the company is indebted more than 50% has served the company, by leaving the same at their registered office, with a demand under his hand, requiring the company to pay the same, and the company neglect to do so for three weeks, or to secure or compound for the same to the satisfaction of the creditor; when order, is returned unsatisfied, in whole or part, by the sheriff of the county in which the registered office is situate; or whenever in Scotland the in which the registered omce is situate; or whenever in Scotland the inducise of a charge for payment on an extract decree, extract registered bond, or extract registered protest, has expired without payment being made. Every application for winding-up must be by petition, accompanied by an affidavit verifying the same. Such petition may, when the company is insolvent, be presented by a creditor or contributory, but in other cases by a contributory only. The court may, upon hearing creditor's petition, discuss it with or without costs, to be paid by petitioner, or make an order, or pronounce an interlocutor, directing the company to ditor's petition, discuss it with or without costs, to be paid by petitioner, or make an order, or pronounce an interlocutor, directing the company to pay the creditor all moneys proved due to him, with such costs as the court may direct; or may, on hearing such petition, make an order or decree for winding-up. If at the expiration of the time named in the order or interlocutor payment is not made, or security given, the court may thereupon make an order to wind-up. The process is nearly the same with regard to a contributory's petition.

After the date of the order or decree for winding-up, all suits and actions against the company will, if the court so order, be stayed, and the company will not have the power of disposing of any property or of transferring shares without the sanction of the court. A copy of the decree must be reported by the company to the Registrar of Joint-Stock Companies, who will make a minute of the same. When the Court of Chancery, in England, makes an order for winding-up, it has power to direct that subsequent proceedings shall take place in the District Court of Rankruptcy, or,

as regards mines, in the Vice-Warden of the Stannaries Court, which courts will then have the same power as in a case declared to be within its juris-diction. Immediately on the order or decree being made, the court must cause the assets to be realised, and the liabilities to be paid. Fraudulent cause the assets to be realised, and the habilities to be paid. Fraudulent preference is provided against by the company being placed in the same position as an individual trader—what would be deemed fraudulent in one case is the same in the other—and the same remedies are applied. The court may examine any person concerning the trade, dealings, estates or affects of the company, may reduce the evidence to writing, and require the deponent to sign the same. Any director, officer, or contributory of the company destroying, mutilating, altering, or falsifying books, papers, &c., will be deemed guilty of misdemeanour, and liable to two years imprisonment, with or without hard labour. Attachments, sequestrations, the company destroying, muthating, attering, or faisitying books, papers, &c., will be deemed guilty of misdemeanour, and liable to two years imprisonment, with or without hard labour. Attachments, sequestrations, or executions issued within three months, next preceding the filling of petition for winding-up, will be void, whether completely executed or not, by the attaching, acquestrating, or execution creditor, who may be indemnified for his costs of suit. All books, accounts, and documents of the company, and of the official liquidators, will be as between the contributories swind focus quidence of the truth of all matters therein contained. tories prima facie evidence of the truth of all matters therein contained and recorded. After the order for winding-up, the court may make calls to the extent of the liability, bearing in mind that some of the contributories may fail to pay their respective portions. The court will order all monies to be paid into some bank, and such money will only be paid out upon cheques, signed as the court directs. The court will have power to restrain further proceedings in any action

or suit against the company, and may call upon creditors to prove their claims within a certain time, or be precluded from all benefit which might be derived. The court may, also, upon due proof that all proceedings in relation to such winding-up ought, in justice, to be stayed, make an order for staying the same, either altogether, or for a limited time, on such terms and subject to such conditions as it deems its. When the creditors are extisfied the court will proceed to adjust the rights of contributories. and subject to such conditions as it deems tit. When the creditors are satisfied, the court will proceed to adjust the rights of contributories

satisfied, the court will proceed to adjust the rights of contributories amongst themselves, and may make such order as the priority and payment out of the estate of the company of the costs, charges, and expenses incurred in winding-up any company, as it thinks fit.

For the purpose of conducting the winding-up, and assisting the court therein, the court may appoint persons to the office of official liquidators, and may from time to time remove such persons, and when a vacancy from any cause occurs appoint others. The official liquidators will be described as of the particular company in respect of which they are appointed, and any cause occurs appoint others. The official figuidators will be described as of the particular company in respect of which they are appointed, and not by their individual names; they will take into their custody all property, effects, and things, in actions of the company, and perform such duties in reference to the winding-up of the company as the court may impose. The official liquidators will have power, with the sanction of the court, to bring or defend any action, suit, or prosecution, or any other legal proceeding, civil or criminal, in the name, and on behalf, of the company as the company as the company as the company as the server of the server legal proceeding, evit or erimman, in the mane, and on centry on the business of the company, so far as may be necessary for the beneficial winding-up of the same; to sell the real and personal, and heritable and moveable property of the company; to execute, in the name of the company, all deeds and documents; to refer disputes to aphiration, and compromise debts and claims: and to do and execute all arbitration, and compromise debts and claims; and to do and execute all such other things as may be necessary for winding-up the affairs of the company, and distributing the assets. The court may appoint solicitors, such other things as may be necess. The court may appoint soluctors, company, and distributing the assets. The court may appoint soluctors, law agents, clerks, or officers, to assist the official liquidators, who will be remunerated by a per centage, or otherwise. The official liquidators when the affairs have been communerated in the same manner. When the affairs have been comwill be remunerated in the same manner. When the affairs have been com-pletely wound-up, the court will declare the company dissolved from that date, which order must be reported to the Registrar of Joint-Stock Com-panies. The following clauses give power to the Lord Chancellor of Great Britain, with the advice and consent of the Master of the Rolls and the cellor, to the Lord Chancellor of Ireland, Court of Session Vice-Chancellor, to the Lord Chancellor of Ireland, Court of Session in Scotland, Vice-Warden of the Stannaries, and Commissioners of Bankruptory, respectively to make general rules; and to the District Commissioners of Bankruptory, and County Court Judges in England; Commissioners of Bankrupt and assistant barristers in Ireland, and to Sheriffs of Committee in Scotland, to be commissioners for receiving evidence. When the company is voluntarily wound-up, notice of the resolution authorising such winding-up must be inserted in the London, Dublin, or Edinburgh Gazette, but the mode of procedure is not materially different. All costs and charges, including remuneration to official liquidators, are payable out of the assets of the company in priority to all other claims. The able out of the assets of the company in priority to all other claims. The voluntary winding-up of a company will not prejudice the right of any creditor of such company to institute proceedings for the winding-up of the company by the court.

and instruction is given to the Board of Trade for the constitu Power and instruction is given to the board of Irade for the constitu-tion of the Registration Office in the fourth part of the bill; and by the fifth, and concluding portion, the several Acts—7 and 8 Vic., cap. 110 10 and 11 Vic., cap. 78; and 18 & 19 Vic. (Limited Liability Act, 1855) cap. 133, are repealed, with relation to joint-stock companies; and with ap. 133, are repealed, with relation to joint stock companies; and with regard to winding-up, 11 Vic., cap. 45, and 12 and 13 Vic., cap. 108, are also repealed. It is, however, provided, that no repeal thereby enacted shall affect any thing done, any right acquired or liability incurred, any penalty or other punishment incurred, or any proceeding to be taken in the prosecution of any order for winding-up under any of those Acts, before with record conversion. such repeal comes into operation.

It will thus be seen, that while every facility is given by the Act for the profitable employment of spare capital, with limited liability, there is also every guarantee to the creditor against loss; and there can be no doubt that, for whatever undertaking the Act may be brought into requi sition, it can be done with an amount of security to which, under English lawas it has hitherto existed, the small capitalist has been a stranger.

COMPANIES "EN COMMANDITE."

The Constitutionnel publishes an article on the bill presented to the French Legislative Corps for the improved regulation of companies en mmandite. This bill has not yet been printed or distributed, consequently the remarks of our contemporary are made somewhat in anticipation; but, on the other hand, the peculiar position it holds authorises a full belief in the correctness of its information. The great interest involved at present in every subject connected with the mechanism of the French financial structure induces us to present the following extracts, which illustrate the bearing of the contemplated law:—

earing of the contemplated law:—
"Companies en commandite have given rise in the past, as also at the
resent moment, to grave abuses, and only too often to deplorable acts of
ublic scandal, it is, therefore, very natural that the Imperial Government
as resolved to preserve society from such disorders. But it is not to be as resolved to preserve society from such disorders. ed that a Government which has developed and constituted in France that wonderful modern power of association should bear hard against on of the legal forms under which it has been exercised with the greates energy and the best results. One thing is certain, that in reforming the companies on commandie it is sought only to protect them against their own impulsions, and not to suppress them. It is sought to strengthen their existence, for the great majority of them are really useful, and not to weaken their means of credit and their elements of success by paralysing and arbitrary measures. The Governments of France since the first empire have not shown themselves very favourable to the orginisation of thes companies. In 1820 the Council of State demanded that those companie pire have not shown themselves very tavourance to the organisation of these companies. In 1820 the Council of State demanded that those companies which divided their capital in shares to bearer should be subjected to the approbation of Government. Later, the July Government laid a bill before the Chamber of Deputies, which interdicted in an absolute manner the division of the capital of these societies into shares. This was too farfetched, too arbitrary, and the Commission of the Chambers, whilst approving of the moral point of view of the law, presented a system which essentially differed from that of the Government. This system guaranteed strength to the companies, and at the same time preserved them from compromising the fortunes of the public. The present bill appeared in the same spirit; we believe that it will preserve rather than destroy companies on commandite, and that it will menace alone hot-headed incapacity, which speculates on the fortunes of the public. One of the essential causes of the present discredit which weighs down the companies on commandite exists in the almost uncontrolled omnipotence which the actual legislature assures to effered pecuniary guarantees on a par with the capital engaged in the enterprise, which is only possible in small companies, there would still remain a danger to the society, in the fact that all discretion and responsioffered pecuniary guarantees on a par with the capital engaged in the enterprise, which is only possible in small companies, there would still remain a danger to the society, in the fact that all discretion and responsibility for good or evil resides in one or two hands. Honesty often fails in the face of this immense power, and even the most consummate skill deceives itself in the absence of any check. The omnipotence of the gerants of business in a few years, and has made a snug thing for the few Species.

has been considered so dangerous for these companies that the four some of the latter have felt for some time past the necessity of en some of the latter have felt for some time past the necessity of ere Council of Control by the side of, and even above, the gerant. Be council is chosen by the founders, and however honourable may be it position, it will only render service to the latter. The council is handsome sign-post, calculated to attract the public. The compan formed, the capital once raised, the council disappears, and the gence comes the absolute master of the associated interests. The ment the council may in vain wish to look upon their mission of contractions light. They are condemned by law to see only what the chooses to show them, and to be acquainted alone with what it min to divulge. Were they to attempt to verify the proceedings management, they would incur the risk of falling under the sha Articles 27 and 28 of the Code of Commerce, which would confoun acts of control with those of management, and would render them. acts of control with those of management, and would render them all sponsible for the acts of the gerant. It has, therefore, become a que whether this fictitious control cannot be transformed by law into a ge whether this notitious control cannot be transformed by its into a ge and deficient superintendence. We are assured that the present bill permeasures in this sense; that it will give to the Council of Superintenthe right of verifying the books and the accounts, and of preventing declaration of any fictitious dividend. At the same time, it will have of calling together a meeting of shareholders, and of submitting meeting the propriety of dissolving the company. Moreover, if our mation is correct, it will be required that this council shall be company to the council shall be company. mation is correct, it will be required that this counter shall be composed of members named by the general assembly of shareholders previous to the commoncement of any other business. Finally, any illegal action of declaration of any fictitious dividend, will be brought to account against every member concerned in the transaction, as likewise against the genula every member concerned in the transaction, as likewise against the gran. The new bill will not, we believe, confine itself to these measures: it was also adopt others, which partake more of the character of prescriptions, the view of maintaining public order. It appears that it will fix a min mum, below which no shares or coupons of shares can be issued, and we prevent the exaggeration of the pecuniary value of the enterprise whi it is proposed to turn to account."

COAL AND IRON IN THE UNITED STATES.

We are indebted to Mr. T. Y. Hall, of New York, for a continuation of the valuable statistical information on the coal and iron trades, for which we have before had to express our acknowledgments. In this present paper, Mr. Hall sets out by showing that the origin and development of the United States' Coal Trade presents one of the most interesting results of earnest and assiduous enterprise to be found in the whole history of commerce. At so recent a period as 1820, the aggregate yearly production of the United States was only 365 tons, an average of just 1 ton per day. Last year (1855) the produce of the mines was 7,307,229 to and this is found insufficient to meet the demand—300,000 tons, havin been imported. Previous to 1820, the fuel of America consisted almo been imported. Previous to 1820, the fuel of America consisted almos entirely of wood, although for ages coal seams cropped out to surface clearly visible. A table is then given, showing the progressive development of the United States coal trade from its commencement, divided in septennial periods, showing, from 1821 to 1827 inclusive—American are foreign coal, 365,099 tons; 1828 to 1834, 2,178,778 tons; 1835 to 1841 been imported. septenmal periods, showing, from 1821 to 1827 Inclusive—American and foreign coal, 365,099 tons; 1828 to 1834, 2,178,778 tons; 1835 to 184, 6,444,521 tons; 1842 to 1848, 15,491,639 tons; 1849 to 1855, 33,153,300 tons. Notwithstanding this rapid increase, the total yield for the whole 35 years does not exceed the Northumberland and Durham produce the last four years; 7,000,000 tons below the produce of the United Kingdom, or about equal to the annual yield of England and Wales alone. dom, or about equal to the annual yield of England and Wales alone. The different kinds of coal have been classed by Professor Eaton under three heads—the genuine anthracite found in the transition argilis; coal destitute of bitumen, usually called anthracite, but differing materially from the former; the proper bituminous coal; and the lignite, found in very extensive strata in the State of New Jersey. The composition of American anthracite is similar, in many respects, to that of Wales, although it contains less bitumen, evolves less heat, and leaves a more slay substance, behind it then Weles and nia contains 300,000,000,000 tons, or 10,000 times as much as Great Britain and Ireland. This is the estimate of the American State 6 gist; we, on this side the Atlantic, can form our own estimate of value of our coal fields, compared with those of Pennsylvania. Then value of our coal neids, compared with those of reinsy, value. Hereae also, the Ashland, the Alleghany, Arkansas, Rhode Island, Masschustts, and Michigan coal fields, not included in the above returns. Above 5,600,000 tons of all the coal produced has been consumed in the iron trade, leaving 2,560,000 tons for other purposes; which, when we consider that there are thirteen states, containing coal beds to the enormous extent of 133,332 square miles, is, indeed, a mere bagatelle.

Most of the 38 states contain, to a greater or less extent, valuable iron coal. In Proposylvania, they are writerially worked more than medalf

ores. In Pennsylvania, they are principally worked, more than one-half of all the iron manufactured being made there. In the James Riverdistrict, iron ore of excellent quality is found; also, between Midothian and Blackheath, at a place called Salles Pits, in beds 20 feet thick, and in the Alleghany coal field it abounds in considerable quantities; and Dr. Salisbury estimates that iron might be produced from the latter by Whipples.

new process, at a cost of 5l. 8s. 2d., per ton, the selling price being 12l. 10s., thus leaving a clear profit at the furnace of 7l. 1s. 10d. per ton Carboniferous limestone, so essential as a flux in smelting iron ore, in found in large quantities, underlying and interspersed throughout the coal coal to the coal of found in large quantities, underlying and interspersed throughout the confields of several States. The great bulk of American pig-iron is made in Pennsylvania with anthracite coal, some in Cumberland with bituminous, and some in Virginia with charcoal. British North America also has excellent coal and iron ores. In Nova Scotia, where both bituminous coal and charcoal are plentiful, iron ores of great purity and in vast abundance are found. The British Government have largely availed themselves of the resources of this colony on account of the iron being made with charcoal; and since last summer they have bought up all the stock of the Acadian Iron Company, being well convinced of the superior excellence of the iron.

The author then expresses his surprise that America, posses mense resources of coal which is here shown, should persist so long insing wood as fuel; previous to 1840 when coal was 25s. per ton on board exclusive of freight, and wood could be had almost for cutting their productions. ference for the latter was not much to be wondered at; but now, the can be had for 14s. or 15s. per ton, its general disuse is astonishing.

The experience of the whole manufacturing world demonstrates the immense superiority of mineral fuel, and surely the Americans will not per mense superiority of mineral ruel, and surely the Americans will not see sist in keeping up antiquated customs, and fighting against such indisputable authority; nor can we believe that an enlightened, liberal people will for any length of time entertain the opinions they now seem to hold with respect to the comparative merits of wood and coal for smelting purposes.

In close connection with this subject is the manufacture of cast-Remarkable as it may appear, no reliable cast-steel has yet been made in America. Their cutlery and edge tools are very good, and the latter, in ome departments, perhaps, unequalled; but English ateel is almost exclusively employed in their manufacture. Numerous experiments have been made to produce a superior article—English workmen have been discontinuous been made to produce a superior article—English workmen have been engaged, and every encouragement given by native consumers, but the result has invariably been disappointment, and sometimes ruin. From whatever cause, it has hitherto appeared impossible to obtain suniform temper in American steel; but a new era appears to be dawning, and it is probable American steel will, ere long, become a competite to its English rival. The Eagle Works, at Pittsburg, employing sixy English workmen, have succeeded in producing an article which is rapidly ferring its way in the market; at Philadelphia, also, success has crowned the efforts of another company; and the Adirondack Company, New Jensf, after enormous expense and losses in experiments, are producing a unity of steel, pronounced by many good judges to be equal to any inported. Protected as it is by an ad valorem duty, the manufacture of east-steel cannot fail to prove highly remunerative where a good sticks are produced.

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JUNE 7, 1856.]

Softers who have the market in their own hands; while some alarm has parters who have the market in their own hands; while some alarm has smally been felt at the importation of Staffordshire bars (Solly's), which we relied steel are equally good with the majority of Swedish brands, it is look to be found in the opinion of spring makers, and could he iron has steadily advanced in the opinion of spring makers, and could he iron has steadily advanced in the opinion of spring makers, and could he iron market; for manure forks, hay forks, and other agricultural market in for manure forks, hay forks, and other agricultural market in the exportation of English spades and shovels is said also also a supply, and we see no reason why England should not come alway ceased; the manufacture in America has greatly increased, have nearly ceased; the manufacture in America has greatly increased. After the cut nail trade, there are few, if any, is the better sort cast-steel imported from Sheffield is used, but for the felicity in the steel of hardware manufacture in America of more importance than he manufacture of springs and axles; almost every man has a vehicle of the superior sorts 13 cents per pound. It appears there is an exceeding wide field for our English manufacturers in America for finished artist of the superior sorts 13 cents per pound. It appears there is an exceeding wide field for our English manufacturers in America for finished artists, and that ye prefer exporting the raw material for manufacture there.

THE PRODUCT OF IRON.

Averginteresting paper has recently been read by Mr. Abram S. Hewitt. this subject, before several scientific associations in the United States. playing much skill in composition, and intimate knowledge of the subdiscussed.

He speaks of Neilson's invention of the hot blast, in 1830, having had marked effect upon production, as the following table will show. In

In	1836,	the make	amounted	toTons	1,000,000
	1839,		***	**********	1,248,781
	1840,		99	*********	1,396,400
	1845,		99	*********	1,512,500
	1847,		99	*********	1,969,607
	1852,		99	*********	2,701,000
ln	1854,	99	99 27 3	***********	3,585,906

This was made," says Mr. Hewitt, "by 599 furnaces, giving an aveage to each of 6000, being 2½ times the yield of each furnace in 1826.
This incredible product was achieved by the direct labour of 238,000 men,
at 2120 steam-engines, as an aggregate power of 242,000 horses, and the
place of the gross product was \$125,000,000." To make this gross prolet, and reduce rather more than half of it to bars, there were dug from
the bowels of the earth and consumed—

.... 2,458,000 20,942,000 = 44,746,000 tons.

sm total before which, as Mr. Hewitt very properly observes, "the agination stands appalled."

sam total before which, as Mr. Hewitt very properly observes, "the magination stands appalled."

But even these figures seem trivial when we come to estimate the demed for iron in the future. The present annual production of the world hand exceed 7,000,000 tons, of which Great Britain produces rather are than one-half. Assuming the world's population to be 900,000,000, he production, and of course the consumption, is at the rate of 17 lb. per sed. Supposing the population of the world to be doubled in 100 years, he consumption in 1956 will be 200,000,000 tons per annum. From 1990 1855, the production increased seventyfold. At the same rate of tenses, the annual make would reach, in 115 years, 490,000,000 tons. In 1856, a period of eight years, it had risen from 2,000,000 1,300,000 tons, at which rate it would double in ten years.

If. Hewitt supposes the production of the world to double once in twenty 1875, the production would be... Tons 14,000,000

In 1875, the production would be...Tons 14,000,000
In 1895, ,, ,, 28,000,000
In 1915, ,, ,, 48,000,000
In 1935, ,, ,, 96,000,000
In 1955, ,, ,, 192,000,000

In 1935, "" 193,000,000

This seems a wild calculation; yet Mr. Hewitt shows that the world will have an use even for this astonishing quantity. The demands for alreads alone he estimates as follows:—

Is frest Britain there is one mile of railroad to about eight square miles of surface, cancetion the ratio is about one to six. In New York the ratio is about one to six. The habitable world would not be over-supplied with the conveniences for seal and transport if one mile of railroad were built for each ten square miles of size. Now, according to the best authorities, there are 29,000,000 square miles of this of the standard of the globe, which will ultimately require 2,000,000 miles of shad. To lay and operation of which will demand at least 60,000,000 tons of iron, the samption for railroads now absorbs about one-third the make of fron; and it is square that, while the nee of iron for the purposes for which it has been long and beindaily growing, each year brings forward new applications, which seem to in
22 that there is no practical limit to its use.

He next question that arises is — "How and where, geographically con-

be next question that arises is—"How and where, geographically conred, is this enormous quantity, or the half of it, or the quarter of it,
to made?" This brings Mr. Howitt to consider "the elementary consessential to a large production of iron." These are—
As adequate supply of the requisite raw materials, ore, limestone, and mineral
for charcoal can only be used, as we have seen, to an insignificant extent.
Those raw materials must be geographically so situated as to be brought cheenly
ther; for the value of raw materials does not more consist in what it is than in
the in—a fact too much overlooked in the mining projects of the present day.
There must be cheap means of transport to market.
There must be adequate capital to build and carry on the works.
There must be indomitable energy and strict integrity in management—that is
y, the iron business can only exist on a large scale where the people are esseniduatrious, intelligent, energetic, and honest.

Ill these elementary conditions. Mr. Hewitt thinks, are combined in

All these elementary conditions, Mr. Hewitt thinks, are combined in All these elementary conditions, Mr. Hewitt thinks, are combined in sat Britain to a remarkable degree; but he believes that there is a namal limit beyond which an adequate supply of raw materials cannot be beened. Nor will the advantages which England possesses in the way fapital last for ever. A point will he reached which will over-task her tural resources, in the way of raw materials and labour, and when it will star more to make iron than it now does. Is she approaching, or has breached, the limit "when the demand will be large enough permatly to raise the price, so as to permit other countries to engage in the siness, without the aid of artificial stimulants to production?" "I do twish to be understood as saying that, even with the present demand, atta Britain cannot undersell the world—far from it; she can do so—if do wish to say that, if the addition of a million of tons to the demand would wadecided influence in still further advancing them, and that at length, the propress of the world, a point would be reached, beyond which the waterided influence in still further advancing them, and that at length, the propress of the world, a point would be reached, beyond which the fluid from could not be supplied at all." From what quarter of the be is the deficiency to be supplied? Mr. Hewitt very decidedly responds to this query—From the United sea. We have not space in which to state his reasoning, but we give practical conclusions. They are as follows:—

The United States have greater negligible progress for the production of iron than

The United States have greater natural resources for the production of iron than the country of the earth, in consequence of the moral elements which character is the nation, the unlimited possession of mineral coal, the abundance and richelf larger and the vast system of natural and artificial avenues of transportation that waverse the land.

the tawers the land.

The difficulties in the way of a large production are purely social and artificial be difficulties in the way of a large production are purely social and artificial be the dearness of capital and labour, which obstacles are being surely and slowly the progress of the country, and the fact that the increase of consumptions of the world will at an early day task the production of in Great Pritain, stee United States have no competitor but Great Britain, the surplus designed that the surely surplus designed that the surely surplus designed that it would, therefore, be unwise for the national Government, in order that the iron business, insamuch as it would only retain grain upon those who have been pioneers in establishing a great branch before, and that if a particular interest, to adopt such legislation as would discriminate the iron business, insamuch as it would only retain grain upon those who have been pioneers in establishing a great branch start, especially as it is now proven that American rails can be made at the avecage of foreign rails.

lag rum upon mose who have the recovery that American rails can be made at the extra ty, especially as it is now proven that American rails can be made at the growth of the business hitherto has surpassed the corresponding growth is the growth of the business hitherto have commenced 50 years behind her, we is day only 19 years in arrear, and may, under all the circumstances, reason-text to overtake and pass that country in the amount of annual production. It, owing to the superior richness of our ores, it is probable that science will so dispense with some of the intermediate processes now necessary for the ison of wrought-iron, and thus achieve an inequality in point of cost with bittain, even before the inequality in cost of labour and capital is reached. From the Civil Engineer and Architect's Journal,

SPANISH MINING AFFAIRS .- No. II.

The Anglo-Asturian Company was formed for the working of coal, iron, and other aines. The directors had also a finger in the North of Spain Ballway. At the proent moment the property of the company comprises four scal con

sent moment the property of the company comprises four coal concessions, two of which are supplying coal to the works, or to the port of Aviles; of the Ciliamanin Iron Mine, in Castille; various other iron mines, of but comparatively small importance; five quicksilver mines, one of which is productive. Their works are close by the viliage of Mileres del Camino, and consist of two biast furnaces (one experimental), with high-pressure engine of 60-horse power, a forge with 69-horse engine, adapted for sheet and merchant iron, with a slitting mill, a refinery, lathe-house, &c.

It has been the fate of few iron-works to pass through such difficulties, natural as well as accidental, as this unfortunate concern. The works, on the whole, are solidly erected. The company, at its first start, became possessed of a mine called Lagos, situated at a short distance from the works, and from the high produce, they commenced their operations in iron making on this to be famous mine. At that time they looked upon this mine as the basis of their manufacture. Before commencing operations, it appears there was a vague suspicion afficial that this mine was not an iron ore, and that the material carted to the works in considerable quantities was not an iron ore, and on the strength of these assertions the furnace was blown in, and the charges began. It appears that some experiments had been made in a foundry furnace, and in crucibles, with a view of ascertaining the produce of the ore, and that the results were not conclusive, the fault being laid to the dry process. By the author's analysis of a fairly taken sample, from a very large pile in the mine-yard, its composition was the following:—

its composi	tion was the following :—	
	Silox (with a little elay)	1·20 8·10
A sample	forwarded to Dr. Thompson gave :— Bilex	2·00 14·00 2·00
A picked	sample, by M. Paillette, gave:— Sliex, with clay Alumina Lime and magnesia Oxide of iron with manganese. Water and a little carbonic acid.	8·150 traces 26·700

Sfall quantities of other ores were used, but they were not abundant, and the Lagos ore was considered the basis of the whole concern. As might have been expected from the composition of the mineral, the furnace, after a short campaign gobbed, and in spite of all the medicines and doctoring that could be applied, was necessarily blown out. The material taken from the furnace yielded some curious products, among others, crystallised magnetic pyrites. The pig metal obtained was remarkable in many respects. In colour almost a tin white, smooth on the upper side of the pig, and unaffected by more than three years' exposure in the spen air to rain and sun. It is brittle, and capable of being powdered in a mortar. Its analysis, by Messra. Paillette and Bezard, gave the following composition:—

star rattered dury pressent Barro and sorround combanne	4044
Silieium	12-9812
Sulphur	0.3096
Iron	81-9856
Manganese	2.6000
Carbon	1.7000
Loss	0.4236

Certainly a more curious carbo-silicuret was never produced. Could such a consition as this be easily manufactured, it might not be without some application

position as this be easily manufactured, it might not be without some application in the arts.

The second campaign of the furnace was also attended with some curious phenomena. The burdens on this occasion were formed in greater part of a rich hematite from mines situated at a moderate distance from the works. The ore from this mine (the Grandata) is associated with magnesian limestone; it forms a large, irregular deposit. Two kinds of ore were exploited, the one granular, of a very peculiar aspect, the other clayey. It is mixed with magnesia, carbonate of lime, or with a carbonate in which the magnesia is occasionally replaced by protoxides of manganese and iron. A pearly white sample, taken from the rock embodying the ore, gave M. Paillette the following:—

Carbonate of lime	48.60	
Carbonate of magnesia	41.86	
Peroxide iron	5.70	
Insoluble residue	3.834	
A sample from a large pile of the granular ore gave the author :	_	
Peroxide of iron	67.12	
Carbonate magnesia		
Oxide magnosia	12.52	
Alumina (soluble)	0.85	
Water in combination		
Loss	0.71	
A sample from a large pile of the clayey ore gave :-		
Peroxide of iron	68-52	
Oxide magnesia	9.35	
Insoluble residue (clay)	15.00	
Alumina (soluble)	1.90	
Water and loss	5.23	
Magnesia	trace	

These ores were smelted with a very lean mine (a schist, impregnated with oxide irons or smelted with a very lean mine (a schist, impregnated with oxide irons and limestone sufficient to render the scoria basic, and gave a very capital pig metal, especially adapted for foundry purposes, and working well in the lathe and fitting shop. This metal was of a strength much surpassing the usual qualities of cast-iron made in England. M. Paillette found the composition of one sample of grey pig metal as follows:—

Iron	87.500
Silicium	5.766
Manganese	0.94
Phosphorus and arsenic	1.374
Sulphur	
Carbon	
Loss	0.4518

furnace was built. In this case the boshes and tymp were made of English tiles and firsherick, and, as in the former case, the hearth, and for several inches shove the diverse, was formed of hardware ase, the hearth, and for several inches shove the times of the property of the propert

100.00 100.00 Coke (per cent.) ...
Ashes in coke.....
Colour of ashes.....
Calorific powers.... 62.60 64·80 66·80 11·5 9·0 ... light buff light buff ... 6352 6219 red 6352

SMOKE PREVENTION—CAN SMOKE BE PREVENTED ?-No. 11.

Nor can we be blind to the improvement which would result were our river steamers supplied with means of preventing the escape of so much of this "sooty" abomination, which most effectually counteracts the efof this "sooty" abomination, which most effectually counteracts the efforts of those who seek a more pleasant and cleanly path by water than is found on land. Why should this "grimy monster" haunt our persons at every step, till we rarely meet in towns or cities with one inhabitant who does not visibly bear the taint or evidence of his touch? It is not the furnace of the manufacturer that is alone responsible; we must provide that our bakers and confectioners, eating and refreshment house proprietors, of various kinds, so numerous in large towns and cities, be prevented from loading the atmosphere, as they now do in their immediate neighbourhood, to an extent which celipses the most exalted efforts of the more distant manufacturers' shaft or chimney. The evil, surely, is greater in degree and more justly to be condemned when brought immediately amongst us, by those with whom the remedy is less difficult and expensive than in the now considered all important factory shaft, very frequently situated at a distance from towns; and in many instances obnoxious only to those who have chosen of themselves to select its immediate neighbourhood as their place of residence, or building speculations. Why should potteries and glass-houses be allowed to continue in face of both Parliament Houses their still greater abominations, because they are incessant, and in superlative quantities both of "smoke and effluvia?" Surely the construction of these is to be as easily arranged to overcome a nuisance (especially when the nuisance is threefold) as any ordinary or extraordinary construction of furnace at which the law levels its potent voice. A pottery is at most but a multiplication of furnaces, and would require, therefore, just such treatment as would a manufacturer's plant in which the shaft may be, and often is, the general recipient of the compounds escaping from many furnaces. It is but a multiple of furnaces, in each instance to be overcome by equally increasing the remedy or means of cure. We are quite cognisant of the pr forts of those who seek a more pleasant and cleanly path by water than is removing, as in some instances it may, a visible nuisance, it can only do

so by an enormous waste of fuel.

All such a contrivance can accomplish is the removal of the black ordi-All such a contrivance can accompant is the removat of the black of an ary appearance of smoke, by causing the nascient carbon, set free in the one furnace, to be absorbed by the carbonic acid of the second, resulting in the formation of carbonic oxide, an invisible but highly combustible compound, the value of which, as a heating agent, is entirely lost by its escaping unconsumed to the chimney. We are also aware that a jet of steam has been, and is much, employed to assist the manufacturer in overcoming the difficulty of smoke prevention: to say nothing of the wasteful loss of steam, and its want of economy as a saver of fuel, it does not effect the purpose desired; it only increases and expands the volume of smoke escaping, thus preventing the close approximation of the particles of soot, it does in a degree remove visible nuisance; but even this is so imperfectly accomplished in its use that the dead, black, sooty presence is easily observant, especially at the top of the chimney-shaft, where both are escaping.* Not to multiply smoke nuisances, and the modes which have been adopted for their removal, cannot we refer to some simple and effective remedy? To their removal, cannot we refer to some simple and effective remedy? To be effective it must be simple. There are many contrivances at the present, so many that we ascribe the general presence of smoke to the difficulty the inexperienced find in selecting, from the numerous condidates, one deserving their choice and favour. To pretend that any principle for smoke consuming (we use the term conventionally) can be new is "simply

Or The plan adopted at Messrs, Cubitt's, that of passing the smoke through streams of water, thus destroying the levity of the gases, and the consequent deposit of the score, is certainly excellent for a lamp-black manufactory, but not as a mode of conomising fuel.

absurd," but a contrivance to carry out a principle may be difficult as it is to distinguish amongst many. We think the invention known, and in successful use for some time past, as Gardner's Patent Smoke Consumer, deserves some praise. Since last noticing this subject Mr. Gardner's apparatus has undergone much improvement, and we are informed with so much success that not only are the parts exposed to the action of the fire rendered perfectly imperishable, by a novel contrivance, but the water is much more quickly heated in the boiler, and the generation of steam thereby greatly economised and expedited.

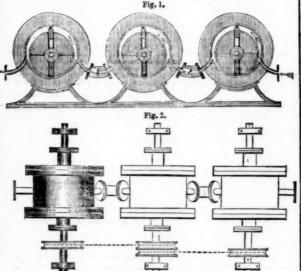
We were, at first sight of Mr. Gardner's contrivance, inclined to do that gentleman injustice, considering the apparatus was of the inverted bridge

We were, at first sight of Mr. Gardner's contrivance, inclined to do that gentleman injustice, considering the apparatus was of the inverted bridge class, so long obsolete; but we found, on the contrary, this gentleman had ingeniously applied the mathematical axiom, "the angle of incidence is equal to the angle of deflection;" we cannot give "novelty" to the axiom, but certainly we must give all credit to the novel feature its adaptation presents. Mr. Gardner uses a deflecting plate, which plate is (we have his specification before us) "set in the furnace inclined towards the air diaphragms;" a striking plate is situated just within the door of the furnace, and opposite the deflector; the action is very beautiful, and unless seen can scarcely be appreciated. The smoke strikes the deflecting plate, and is immediately deflected to the surface of the boiler, and thence towards the door, but is caught by the striking plate, and deflected down

seen can scarcely be appreciated. The smoke strikes the deflecting plate, and is immediately deflected to the surface of the boiler, and thence towards the door, but is caught by the striking plate, and deflected down upon the heated fuel; once in the draughtway, immediately above the fuel, it is carried under the deflecting plate, then meets with a current of pure air, and is entirely consumed. The action of this contrivance is very perfect, and when at work, not any smoke or vapour, "white or otherwise," can be seen escaping; the economy of fuel and generation of steam are both very considerably improved. We are aware that the patentee has experienced very great difficulty, owing to the angular position of the deflecting plate, and its direct exposure, hitherto without any protective influences, such as have been used in the old-fashioned hollow bridges, some of which were supplied with air, and thus kept cool, a plan not congenial to the operation of Mr. Gardner's contrivance, besides possessing other objections. The inventor has now, however, by these important additions and successes to which we have alluded, so perfected the contrivance that we hope to find its use more general, and he meeting with the success which is due to all those who persevere in supplying a want long known to exist. The patentee, we understand, furnishes the most unexceptionable guarantees for the fulfilment of his representations. There can be no objection, therefore, and we should cartainly recommend our friends to carefully notice this patent, both in its theory and practice, being certain it will afford ample recompence for the time bestowed. There are many other contrivances—none, we think, more simple or certain than this; we would ask our friends, therefore, are you aware of this simple remedy the recommend of the property of the property of which first the words of a well simple recompends the recommend of the property of the property of the simple recompends the recommend of the property of the property of the property of There are many other contrivances—none, we think, more simple or certain than this; we would ask our friends, therefore, are you aware of this simple romedy, the recommendations of which (in the words of a well-known gentleman of science, whose testimony we find affixed to Mr. Gardner's circular) "must tend greatly to secure for it that support which, as an invention based upon the laws of Nature, it deserves." The improved apparatus of Mr. Gardner is, we understand, fully perfected for operation, and may be seen affixed and working, in connection with various steam-engine boilers. We refer for particulars to our advertising columns, in which a notice of this contrivance is published.

PARSEY'S REVOLVING STEAM-ENGINE:

THE PERFECT PLAN OF WORKING STEAM BY EXPANSION AND EXHAUS WITHOUT A CONDENSER, AIR-PUMP, AND WATER.



History shows that there are periods when great inventions benefit so ciety, and that greater benefits follow from improvements, as science and skill advance with the wealth and enterprise of nations. In steam engineering Watt rose to the highest dignity, and the benefit of his skill is felt throughout the world. His system has had its full century of reigning influence, and on his grand idea and practices other eminent engineers have expended their ingenuity in modifying and improving all the minor details of steam machinery, till it may be said that system admits of no further improvement.

improvement.

But, although his system may not admit of improvement, it must not be said that steam engineering has attained its ultimate perfection. Watt had the common practice—of piston or reciprocating engines—to begin npon, and to improve; and he did so most gigantically, for he introduced the elegant practice of condensation, which, as a means of power and economy, ranks in the highest order, and is, perhaps, the most elegant theoretical idea in the science of engineering; but the character of the machinery to which he had to apply it was not sufficiently practically perfect to bear out the theoretical principles to perfection which require a circular motion; but as circular motion had not been discovered in mechanics, the elegant principle had to contend with the imperfect principle of re-

cular motion; but as circular motion had not been discovered in mechanics, the elegant principle had to contend with the imperfect principle of reciprocating motion, commonly used to produce a working rotatory motion.

The object of condensation is a rapid extraction of the temperature of the steam and of air, so that when the force of steam is applied on the opposite side of the piston it may offer no resistance, or to produce, as nearly as possible, a vacuum alternately in front of the piston. This requires a condenser and an air-pump, proportioned to the cylinder and piston of the engine, and the use of cold water to effect the reduction of temperature in exhaust steam.

the exhaust steam.

The dead points of pistons (or when they give no driving power), the lead of the slide which admits the steam before the piston has reached the top and bottom of the cylinder, and its having to change its direction in pulling and pushing a crank round twice every revolution of the driving-shaft, &c., are good and substantial reasons of that want of free and unchecked continuation of the power of steam in the principle of reciprocating machinery, which can only be attained by means of a practical circular motion.

My invention of the revolving steam-engine, being the accomplishment of that mechanical desideratum, the practical purpose of the theory of condensation can be perfectly carried out, without a condensor, water, or an air-pump. By attaching a second engine, or a third, the inlet port of the one to the outlet port of the other, and by connecting the shafts so that two or all three work simultaneously, on letting the steam into the first engine, all three piston-flyers will be forced one-quarter of the circumference, as shown in the drawing. The engine being so excellent an exhauster, while the steam pressure has forced the flying-piston its quarter in the first engine, the second engine will have exhausted the other quarter of the first engine, and by cutting off the steam, then it will expand into the second quarter, which, having been exhausted, leaves the full power of the steam to operate on the piston. The third engine operating in like manner on the second, by expansion and exhaustion, high pressure steam is worked through them, or we may say worked over again three times, and blown off at or near atmospheric pressure, by which means all the power of steam is made to do duty, and the beneficial practice of expansion and condensation more perfectly obtained by expansion and exhaustion, My invention of the revolving steam-engine, being the accomplishment

without the expense of water, the condenser, air-pump, and appendages. A small chamber and valve is only necessary between each pair of engines, to assist and stop the exhaustion, and if steam of 90 lbs. per inch pressure expand on the first, 45 lbs. of steam in the second, and 22 5 lbs. in the third, the power (expansively) of 157 5 lbs. is worked with 90 lbs. of steam, and blown off at about atmospheric pressure. Disinterested experience in steam engineering is left to judge if this be not an economy of steampower, and an improvement of vital interest to the community at large, and whether circular motion does not date the epoch of an improved era in engineering.—Great Scotland-yard, June 2.

A. Parsey.

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The principal defect in the old process, which was similar in principle to that used in the manufacture of coal gas, was the necessity of employing a very high temperature, causing both great waste of material, and also considerable loss from the frequent breakages and heavy wear and tear of the apparatus, and this defect was increased by the difficulty of accertaining and regulating the temperature actually employed, and the consequent necessity for great experience and skill on the part of the operator. By the now process, the temperature is reduced by at least 500°, and by a simple mechanical contrivance is readily ascertained and regulated. The result is a very considerable saving, in material, fuel, and time; while, from the smallness of size and simplicity of construction, the first expense of the apparatus is greatly reduced. The above advantages are entirely independent of the great reduction of expense effected by the use of a new material, which has been invented and patented by Mr. Hansor, and by the use of heap and abundant vecetable substances in combined for the process of the control of the great for the great for the great for the great is effected.

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reduced. The above advantages are entirely independent of the great reduction of expense effected by the use of a new material, which has been invented and patented by Mr. Hansor, and by the use of a new material, which has been invented and patented by Mr. Hansor, and by the use of which the supply is most ample and the value hitherto merely nominal. The reduction of expense consequent upon the above improvements is such, that, after adding to the cost of production a large per centage for profits to the company, both on the apparatus and the material, the cost to the consumer for a perfectly pure and brilliant light, depositing neither sulphur, soot, nor any other impurity, will be less than one-fifth of that of oil; the cost per light, after allowing for interest on outlay, working expenses and repairs, will not exceed one halfpenny per hour, each of such lights being equal in illuminating power to nine spermaceti candles. The apparatus can be worked by any man-servant; and in ordinary establishments a week's consumption could be made at one. The operation is simple and cleanly, and is not accompanied by either smell, smoke, or annoy-ance of any kind. The above statement is based upon the results of actual experience, and is also fully borne out by the opinions of eminent scientific gentlemen, both engineers and chemists, who have witnessed the process and reported on the advantages of the invention. These opinions have been fully corroborated by the analytical report of Dr. Letheby, to whom the subject has been recently submitted by the directors. It is not intended to compete with coal gas companies, but rather to supply establishments where, from the distance of coal gas works, or from objection to its impurities, ordinary coal gas is not likely to be introduced. Country churches, noblemen's and gentlemen's houses, railway stations and barracks, manifactories and warehouses for delicate fabrics, will afford the principal field for the company's operations in this country, and a considerable amount of busi

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The old shares of £1 each in the Treburgett Consols Mine will be received in exchange, and in payment of the deposit of £6 5s, per share.

SECRETAR—William Evans.

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OFFICES,—9, AUSTINEMAS.

REPORTS RELATING TO WHEAL CURTIS, WHEAL STRAWBERRY, AND WHEAL DUMPLING (NOW CROWAN CONSOLS), PROM CAPT. JAMES CRASE.

I beg to hand you my report of the above mines:—They are situated in the parish of Crowan, in one of the best copper strata in Cornwal; the setts are extensive, 1½ mile in length, and ½ mile in breadth, on the course of the lodes. It adjoins and runs parallel to the celebrated Wheal Abraham, Oatfields, and Cronver Mines, from which great profits have been realised. There are six well-defined lodes known to be in the sett. Our workings will for the present be principally confined to four lodes,—namely, Wheal Curtis lode, Wheal Dumpling and Wheal Strawberry lode, Mill lode, and the New lode. Curtis lode is wrought to the depth of 47 fms. below the adit; from this shallow depth about £10,000 worth of copper ore was raised. Wheal Dumpling is sunk 27 fms, below adit, and a level driven east of the shaft about 40 fms., through good tribute ground; I believe the Dumpling will prove a rich mine. The New lode, which intersects the Dumpling and Curtis lodes, is only seen about 4 fms. from surface, where it presents a very fine gossan; I have a very high opinion of this lode, looking at the lodes and the stratum of ground. You can depend on Mr. Hopkine's plan for correctness. The engine-house is in the right place; it will require a 70 in., with two boilers about 12 tons each.

***BEDET OF CALLY, MOND.**

REPORT OF CAPT, PLOYD.

The sett is extensive, including Wheal Curtia, Wheal Dumpling, and Wheal Strawberry. It is about 1½ mile in length, and ½ mile in breadth, in the parish of Crowan. It is parallel to the celebrated Wheal Abraham, Crenver, and Oatfields Mines. These mines have produced immense quantities of ore, and have returned large profits. Wheal Curtis, &c., are in the same stratum of mineral ground, and, according to the depth at which the lodes have been wrought, they have been more productive than Wheal Certare and Whala Abraham. From Wheal Curtis alone (which has been wrought only to the depth of 47 fms. below the adit level) upwards of £10,000 worth of copper has been returned. The Wheal Dumpling lode, which is 60 fms. south of Wheal Curtis lode, is of a promising character, and is likely to prove quite as productive as the other, if not more so. Altogether, there are six well-defined lodes in the sett. A lode south of Wheal Curtis and Dumpling lodes, and which intersects both, is likely to prove as productive as either of the before-mentioned lodes, when opened on. With the exception of a pit mark on it, a few feet from the surface, nothing has been done on it. There is another lode south of Wheal Curtis, called the Drym lode, which has a promising appearance; it produces a splendid goesan. The stratum of ground in which the mines are situated is well known, as well as the character of the lodes. Allow me to say, no man can speak too highly of this piece of ground; and it is my opinion they will make good dividend-paying mines.

Signed, PETER FLOYD.

REPORT OF CAPT. CHARLES THOMAS, OF DOLCOATH MINES.

REPORT OF CAPT. CHARLES THOMAS, OF DOLCOATH MINES.

I have this day inspected this mining sett; it is situated to the south and southwest of Wheal Abraham, and north of Godolphin, both of which mines, 30 or 40 years since, produced large quantities of copper ores. The stratum here is clay-siate, of the same mineral character as that of Wheal Abraham, being in the same geological formation. Wheal Abraham was found rich to full 200 fims. deep, and I perceive no cause to induce me to think that this mine may not be found productive equally deep. The Wheal Curtis lode, which is nearly parallel to Wheal Abraham, is worked to the 47 fm. level below the adit; the mine is now full of water to the adit, which prevents me examining the lode, but I find the stuff above lying on the surface to be quartz of the same kind as that in the burrows of Whea! Abraham. I have also seen the reports of two highly respectable mining agents, who inspected the mine during the working (1843), from which I gather that the lode down to the bottom of the mine was of good size, and rather increasing in productiveness. The steam-engine at that time was unequal to the work of draining the mine deeper, and the company had not sufficient capital to erect a larger one. After the ore was taken away to that level, so far as would pay for working, the mine was abandoned. Wheal Dumpling lode lies about 50 fms. sount of Wheal Curtis lode. This mine is only worked 20 fms. below adit, which is 16 fms. deep. Good bunches of ore were found during the last working, but there is not depth enough for regular courses of ore to be expected. On the whole, I have no besistation in recommending this mining sett as a legitimate field for conducting mining operations in a vigorous manner. The canners and the lode are easy to work, and the ores can be cheaply dressed for market; the labour cost, therefore, will not be heavy. A steam-engine of not less than 70 in. diameter will be required, which will probably drain the mine to 130 fms. below adit.

Prospectuses of t

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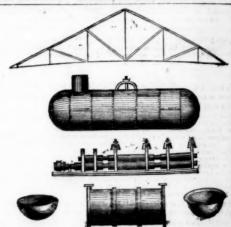
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